



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

February 16, 2006

John Simkins
Federal Highway Administration
400 N. 8th Street, Room 705
Richmond, Virginia 23240

**Re: I-81 Corridor Improvement Study in Virginia, Transportation Improvements
from the Tennessee Border to the West Virginia Border, (Tier 1 DEIS), CEQ No.
20050510**

Dear Mr. Simkins:

In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) offers the following comments regarding the I-81 Improvement Study in Virginia. The I-81 Corridor Study is a Tier 1 Draft Environmental Impact Statement that examines various highway improvement concepts (325 miles from the Tennessee border to the West Virginia border) and freight rail improvement concepts to meet the projected 2035 traffic demands. The Tier 1 document broadly examined various improvement concepts and, consistent with the NEPA Tiering process, more detailed studies will be performed in Tier 2 environmental documents if a concept is carried forward for implementation.

The highway improvement concepts are: Transportation Systems Management (TSM), adding one lane in each direction, adding two lanes in each direction, a uniform 6 lane concept, a uniform 8 lane concept, separated lane concepts, four freight rail improvement concepts, and the combination of rail concept three with each of the highway improvement concepts.

According to the Tier 1 DEIS, upon completion of the study, decisions will be made on:

- The improvement concepts, whether to advance I-81 as a toll pilot project,
- The identification of projects with independent utility and logical termini to be studied in Tier 2,
- The types of Tier 2 documents,
- The location of the corridor for studying alignments in Tier 2 and certain right-of-way decisions.

EPA has several concerns with this Tier 1 DEIS. An over-arching concern is the reliability of traffic modeling when projected to 2035. In our experience, this is much further ahead in time than typical traffic forecasting, and the Tier 1 DEIS provides little basis for describing how the projections were made. The Tier 1 document references the traffic technical study, but includes no data or factual summary to describe the assumptions used. Assumptions used in forecasting future demand that should be discussed in more detail in the body of the FEIS might include future changes in energy availability, fuel prices and stability, national and

regional trends in truck vs. rail freight movement, and economic and growth trends along I-81 both inside and outside of Virginia.

As a result of the uncertainty of 2035 projections, EPA recommends that perhaps three tiers of study may be warranted. Tier 2 could address 2020 needs driven by local transportation issues and local growth, with a third Tier of study to address longer term needs. This would allow for longer term projects to be adjusted according to updated traffic and economic analysis thus providing a clearer picture of what improvements are needed prior to implementation. EPA recommends at a minimum, a Tier 2 mechanism be identified in the FEIS to revisit the projected 2035 assumptions and needs before a project is committed to by the sponsoring agency.

Another major concern with this DEIS is the apparent intent (pages ES-xvi and 6-5) to proceed with either Categorical Exclusions (CE) or Environmental Assessments (EA) for the Tier 2 documents. This is a change from the pre-draft document, which identified certain Sections of Independent Utility (SIUs) as likely requiring EISs. EPA commented that the pre-draft document, which identified sections that may require a Tier 2 EIS, was a good start and even offered suggestions on adding details to this discussion so it was clear why an EIS may be required in Tier 2. However, all reference to the type of NEPA document expected for each SIU has been removed from the final draft. It is our opinion, even from the limited social and natural resource impact information contained in the Tier 1 DEIS, that EISs will likely be required for some of the Tier 2 projects. This would be particularly true for new alignments and projects with large numbers of residential displacements. This issue should be more thoroughly discussed in the FEIS.

The document is unclear in regard to exactly what improvement concept decisions will be made as a result of this study. This confusion appears in part to stem from the undefined relationship between the corridor long improvement concepts found in Chapter 3 and the SIUs identified in the Executive Summary. The improvement concepts discussed in Chapter 3 are not targeted to solve location specific issues. However, near the end of Chapter 3 more focus is put on location specific issues through the identification of certain highway stretches requiring one additional lane in each direction. The DEIS confuses this issue by not explaining the difference between these highway stretches, the SIUs, and two new concepts introduced in the Environmental Consequences section. The document does not explain why improvement concepts were developed for the entire 325 mile roadway since the identified SIUs would provide more focus. In addition, it is not clear if each of the numerous improvement concepts will be carried forward for more detailed study within each SIU. All of these questions should be clearly articulated in the FEIS.

A related concern is the lack of acknowledgement that improvement concepts identified in Tier 1 may not be entirely buildable as conceived due to environmental constraints that may be discovered in a Tier 2 review. It should be made clear that an improvement concept recommended for Tier 2 does not have to be built as conceived and may have to be modified as later design stages are developed.

Chapter Six (Decisions to be Made) identifies two potential corridors on new location but provides no meaningful information on the conceptual corridors or the potential environmental consequences. This is a serious shortcoming of the Tier 1 document in that some of the larger environmental impacts and more costly aspects of the I-81 improvements will likely occur in

these areas. There is no information to make a location or potential location decision for these areas in the Tier 1 document.

Consequently, as outlined above and further supported in the attached comments, EPA rates the document as Category 2, Insufficient Information. The Tier 1 document appears only to contain enough information to make decisions on one of the six issues outlined on page ES-ii, the identification of SIUs. Based on the relative difference between the environmental impacts and the effects on highway capacity, we offer a split rating on the concepts, with the minimum footprint concept, that closely fits the scope of improvements to the actual local needs, being rated as Environmental Concerns (EC). Based on the large impact to battlefields, streams and potential residential and business displacements, and considering the over capacity created by these concepts, we rate the corridor long, uniform widening concepts and the maximum footprint concept with Environmental Objections (EO). A copy of our rating system is attached.

If you have any questions or comments regarding this letter please feel free to call Mr. William Arguto at 215-814-3367 or Mr. Peter Stokely of my staff at 703-648-4292.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. J. Hoffman', followed by a long horizontal flourish.

William J. Hoffman, Chief
Environmental Programs Branch

EPA Supporting Comments, I-81 Corridor Improvement Study DEIS, February 2006

Executive Summary:

EX-xvi: The second paragraph indicates that all Tier 2 documents will be either EAs or CEs. The FEIS should recognize that EISs could be needed for some sections. This was clearly indicated in the pre-draft document and should be included in the FEIS. In addition, please include a more thorough summary of the major issues expected in each EIS and EA that will follow in Tier 2. Additional details, such as the specific nature of the Section 4(f) and 106 issues should be given. For each Section 4(f) issue the name of the resource should be listed and the type of impact should be indicated. For example, will the impacts be due to right of way impacts, noise, visual or other?

NEPA Tiering Process:

Page 1-2: If state law does not allow tolls on cars, please more thoroughly explain why tolling cars is being evaluated and by what legal mechanism it can be evaluated or implemented.

Purpose and Need:

The traffic growth projections have a direct relationship with economic growth; by using growth forecasts from macroeconomic econometric models, traffic growth in the I-81 Corridor is estimated. However, issues such as modal shift, commodity composition, rising fuel prices, truck driver shortages, increased transport efficiency of rail, or environmental impacts such as diesel exhaust emissions, may or may not call into question the 2035 forecasting. Moreover, the growth projections were extrapolated from a time at which fuel prices were much lower than today and accounted for a smaller portion of total costs. These issues should be disclosed and discussed in the FEIS with the focus of the discussion on the accuracy of modeling growth as far out as 2035.

The DEIS implies that congestion on Rt. 11 will not be negatively impacted either by the no-build alternative or by a build concept with tolling. This seems to indicate that I-81 is not as congested as forecasted or it would stand to reason that Rt. 11 would be more heavily impacted by the no-build. Please explain traffic condition assumptions for the no build and under tolling in the body of the FIES.

All of these issues should be thoroughly addressed in the FEIS.

Improvement Concepts:

The DEIS switches back and forth between the term improvement concept and build concept. The FEIS could be much clearer by defining these terms and only using one or the other but not both, unless they are distinctly different.

It is unclear what the relationship is between these identified stretches of highway found in Chapter 3 and the SIUs identified in the Executive Summary. The FEIS should clearly explain the relationship between the stretches of highway identified in this section and the SIUs. In

addition, the FEIS should better explain how the minimum and maximum foot print concepts first identified in the Environmental Consequences section evolved from the improvement concepts found in the chapter. More explanation is warranted regarding why VDOT studied uniform corridor length improvements in the first place if certain sections will require more tailored localized improvements that may not resemble the concepts found in this document.

The conclusion of this section could be further clarified regarding specifically what will be recommended for Tier 2 study. It is not clear if each corridor long concept will be carried forward as an alternative for each SIU. For example, what will be studied in Tier 2 for the Harrisonburg area? Will TSM, TSM plus one lane in each direction, two lanes in each direction, uniform 6 lanes, uniform 8 lanes, separated lane concepts and each of the combinations of these with Rail Concept 3 be studied in Tier 2 for Harrisonburg? This should be more thoroughly described in the FEIS. There is a summary of information regarding what was learned from the various studies, but how this will be translated into a narrowing of concepts to be advanced to Tier 2 needs more explanation.

3.9 TSM:

Please explain what is meant by “the evaluation results were slightly conservative because the Transportation Demand Management (TDM) measure of increased park and ride lots was not included in the evaluation of the other stand alone alternatives”. It appears that by not assuming the reduction of 3-5% in traffic from new park and rides that the evaluation results would be generous, not conservative.

3.2.3 Rail Concepts:

The FEIS should contain more detail regarding the rail concepts, for example are there new tracks, sidings or alignments included in the rail improvements and if so where. This will help better understand the potential impacts as compared to the generic 100 foot wide corridor and is more commensurate with the information presented for the highway improvement concepts.

3.2.9 Combination Concepts:

Please summarize in the narrative how the addition of a rail concept to a highway concept affects safety and capacity measures

Please develop a comparison table of the improvement concepts, including the combination and separated lane concepts, so that the concepts can be quickly compared to each other in regard to safety and capacity improvements.

3.2.11 Improvement Concepts Under Consideration:

Please indicate by percentage how much of I-81 is in need of more than one lane in each direction. It appears that 61% of I-81 will need more than one lane in each direction by 2035. The FEIS should state this explicitly.

The I-81 Tier 1 DEIS is unique in the respect that a rather detailed alternative, put forward by private enterprise, Star Solutions, is, or was one of the improvement concepts being considered.

What happened to the STAR Solutions “alternative” proposed several years ago and addressed in an earlier version of the DEIS? It is not clear if the Star Solutions alternative is the separated truck lanes concept in the DEIS or if it has been dropped from consideration.

Affected Environment:

The FEIS should place more emphasis (Executive Summary, Affected Environment, Environmental Consequences) on the unique, historical and scenic nature of the Shenandoah Valley and what efforts will be made to protect the resources of the valley and its vistas.

Environmental Consequences:

In the Environmental Consequences section two more concepts are introduced for the first time, the minimum width and maximum width concepts. Both of these concepts vary the number of lanes proposed to fit the needs of each SUI, although because of lane separation measures, the maximum footprint appears to provide the same capacity with the greatest impact. EPA supports the approach of tailoring the projects to the needs of the SIUs but the document needs to better explain how these evolved from the improvement concepts found in Chapter 3.

One of the largest impacts to resources of importance will be to Civil War battlefields. The current I-81 bisects several battlefields and the improvements will likely require more battlefield land. EPA recommends VDOT consider the minimum design footprint feasible in these areas. Moreover, EPA recommends the FEIS contain a discussion of future coordination to occur regarding the evaluation and preservation of battlefield resources in Tier 2.

No data on forest impacts is given. EPA recommends forestland impacts be included in the FEIS